CHILD AND MATERNAL HEALTH IN THE DEPARTMENT OF TOTONICAPAN DELIVERING ESSENTIAL HEALTH SERVICES IN THE REMOTE AND CULTURALLY-ISOLATED GUATEMALA HIGHLANDS

MID-TERM EVALUATION OF PROJECT HOPE/GUATEMALA

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TABLE OF CONTENTS

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EXECUTIVE SUMMARY

Project HOPE is implementing child survival activities in four districts of the Department of Totonicapan, Guatemala, in coordination with the Ministry of Health and Social Welfare (MOH) and community organizations. The activities that Project HOPE is implementing are directed at reducing the infant mortality rates due to infectious diseases, which are the cause of infant death in about 97% of all cases in Totonicapan. This report provides a summary of the project's achievements and recommendations by the team especially selected to conduct the Midterm Evaluation.

The objectives of this evaluation are: 1) to review project implementation to modify and refocus strategies and activities; and 2) provide recommendations to establish the priority activities for the last year of the project. The evaluation team used different sources of information and analyzed these to recommend specific actions. Prior to the evaluation process, the Guatemala field staff conducted a quantitative knowledge, practice, and coverage survey and compiled documents and materials that had been produced over the life of the project.

The project has made significant progress with respect to the benchmarks set for the midterm. Some interventions, such as mothers' knowledge, practices for the control of infant diseases, and the utilization of health services for women remain at a low practice level. Activities to control acute respiratory infections have not yet been initiated. In general, project activities are effective and relevant for child survival. Not a great deal of progress has been made in community organization to achieve better use of available services or to develop local initiatives. The design of the project continues to be modified since the arrival of the new director (six months). The information system produces information but is not used very much in the decision-making process. Community education activities take up the majority of the time of the Project HOPE and community personnel, however, the current strategy is getting little coverage. The most developed implementation strategy is the activity for the improvement of care during delivery. In this strategy a group of traditional midwives, called TBA peer supervisors (comadronas de apoyo), are included in the technical team and supervise and modify the inadequate practices of other midwives. This strategy removes serious communication obstacles with the target population, obstacles that still persist in the infant health components of the project. The support from Project HOPE's central office is constant and is very good. The project enjoys excellent relationships with the MOH and with other institutions developing health activities in Totonicapan.

The principal conclusions are related to the extension of the project into the community. These conclusions analyze the limited activities in expanding the coverages of EPI, ORT, ARI, and child spacing as well as the relationship between the community organization activities and their effect on the sustainability of the project. A review is made of the following activities: education and communication; organization of the project, especially human resources; planning and implementation of activities; and coordination with the MOH. The principal recommendations relate to coordination with the MOH and its role in

sustainability of project activities; intervention priorities, with suggested strategies and procedures; human resource development; planning, monitoring, and quality control; education and communication, with emphasis on demonstration and practices relating to care of the sick infant; and an example of a plan to implement these recommendations in an integrated way.

I. BACKGROUND

Project HOPE has implemented Child Survival activities in communities in four districts of the department of Totonicapan, in coordination with the Ministry of Public Health and Social Welfare (MOH) and various community organizations. Program financing was received in 1991 from USAID, from the central office of FVA/PVC. Because this funding was won as a result of open competition with other private organizations, a proposal was required to describe the program activities to be developed in Totonicapan. Upon funding, Project HOPE prepared a Detailed Implementation Plan (DIP), which took into account the level of the budget and data gathered with the baseline survey in January 1992.

Program activities are directed at reducing infant mortality due to infectious diseases, the cause of 97% of infant deaths (MCH Operating Plan, Totonicapan Health Area, 1993). Activities are implemented by Project HOPE's technical and administrative personnel, who provide direct educational services, vaccinations, training of community health volunteers (CHVs) in health education, traditional birth attendants (TBAs) in safe delivery practices, and distribution of supplies. The program also reinforces the capacity of the MOH for community outreach by providing education, logistical support, and transportation. Likewise, communities are assisted in the implementation of home gardens and four community pharmacies. Project HOPE personnel also collaborate with the MOH on vaccination campaigns, providing technical and logistical support.

The DIP includes an evaluation scheduled in the middle of the project's life (Mid-Term Evaluation). This report documents the process, the findings, and the recommendations of a team especially formed to complete this evaluation.

This document is intended to be concise and practical. Therefore, information gathered during the evaluation by reviewing related documents produced by Project HOPE will not be presented in this document. When information in these documents are referred to in this report, the name of the document is specified in the text.

II. EVALUATION METHODOLOGY

For seven work days, a multi-disciplinary and inter-institutional team met to review available project data and to collect additional information, primarily of a qualitative nature, to complement the existing data. The team proceeded to interview community leaders, fathers, mothers and other direct beneficiaries of project activities. Information was also obtained from other persons directly or indirectly involved in present or future activities of the project. It is important to mention that, prior to the evaluation, the project implemented a KPC Survey in select areas which furnished important program information for the evaluation.

Below, the most important aspects in the evaluation process are summarized:

A. Objectives and Expectations of the Evaluation

The mid-term evaluation makes it possible to restate the strategies and activities described in the initial project documents in light of the lessons-learned by Project HOPE staff. During the first day of the evaluation the following objectives for this evaluation were discussed and finalized.

- Examine the management process of project implementation with the objective of redirecting the strategies and activities; and
- Provide recommendations for prioritizing activities for the last year of the project.

In addition to those objectives, project field staff and MOH expectations of the evaluation were also included. They can be summarized as follows:

- Promote team work between the MOH and Project HOPE;
- Provide a product of this evaluation that is practical and feasible to implement;
- Assure that the evaluation be a learning process;
- Identify strategies to integrate the activities of the MCH program which strengthens the health facilities of the MOH with the CS program which assists the communities;
- Clarify sustainable activities; and
- Identify replicable strategies (lessons-learned).

During the first meeting interventions considered key by project staff, and that would benefit from an outsiders perspective, were also discussed. These are summarized as:

Birth spacing: involvement of men;

Strategies of using TBA peer supervisors;

Immunization coverage rates;

Use of ORT;

Epidemiological surveillance of EPI diseases;

Community pharmacies: operational and sustainability issues;

Characteristics of volunteer attrition and incentives;

ARI: how and when to begin in high-risk communities, epidemiological surveillance, activities in health facilities;

Vitamin A supplements and introduction of CARE foodstuffs (weaning foods); and

Communication strategies: review of techniques used by the field team.

B. Evaluation Schedule

8/9/93	Arrival of external evaluator in Guatemala
8110	Arrival in Quetzaltenango. Review of documents; organization of agenda for evaluation; meeting with the MOH Area Chief; formation of evaluation team.
8/11	Meeting of the multi-disciplinary team; development of objectives and expectations; listing of sources of information; and distribution of work among team members.
8/12-15	Interviews and field site visits.
8/16-17	Conclusions of the team about project activities.
8/18-19	Recommendations of external evaluator.
8/20	Compilation of notes to prepare the evaluation report; review of notes and input to draft report by local evaluation team.

C. Methods and Format of the Evaluation

The methodology employed used different sources of information to promote a process of analysis by the evaluation team to produce conclusions and make recommendations for the project. Prior to the evaluation, Project HOPE/Guatemala implemented a quantitative survey of knowledge, practice and coverage (KPC), utilizing the methodology recommended by the PVO Child Survival Support Program of The Johns Hopkins University. Also, project staff compiled the documents and materials produced by the project to date.

The evaluation team reviewed the existing documentation and used qualitative methodologies to complement the existing project information. Guidelines distributed by USAID for the implementation of mid-term evaluations were used to guide the interview formats used with various information sources. See Appendix 1 for a list of sources of information and interviews used. A combination of structured and unstructured interviews was used. Structured focus groups and conversations with homogeneous groups of individuals was also utilized to gather opinions on specific themes (i.e,. birth spacing with men).

D. Evaluation Process

To make the evaluation process objective and useful for the different audiences that will use this information, an evaluation team was formed with participation of field staff, both from Project HOPE/Guatemala and the MOH, representing different levels of decision-making. A Project HOPE/Headquarters representative, responsible for technical and administrative backstopping of the project, also participated in the evaluation. An external consultant

served as team leader to facilitate and coordinate the efforts of the team and to provide the methodology. For a list of participants, see page ii.

Evaluation team members conducted interviews with persons from different institutions to give members of the technical team the opportunity to interview people with whom they would generally have no contact (e.g., the Program Director with mothers, technical staff with community leaders, etc.).

Individuals were interviewed in their place of work, and project beneficiaries in their communities, In spite of the geographic difficulties, a sufficient number of interviews were conducted to give the evaluation team enriching and spontaneous qualitative information.

One of the evaluator's objectives was to introduce techniques for the rapid collection of valid and reliable data to field staff to enable them, in the future, to collect data periodically as part of the project's implementation process.

III. PROJECT STATUS

In a short period of time, Project HOPE's Guatemala Child Survival (CS) project has capitalized not only from its past child survival experiences in Guatemala, but also on experiences of CS programs in the Americas. In spite of having had some serious problems of getting qualified staff at the beginning, the present technical team, consisting only of Guatemalan nationals, demonstrates a well-integrated concerted effort, with very innovative strategies that responds with great sensitivity to the indigenous culture in the difficult geography of Totonicapan. It is surprising how in only a few months, the project has been able to positively influence health service coverage levels to such an extent and to see how this has influenced the morale of the MOH staff who appear to be rejuvenated and more open now than ever to international technical and financial cooperation.

Below, major aspects of the present status of the project are described.

1. Achievements

A well-implemented baseline survey and a second survey' make it possible to observe trends of certain indicators. Overall, one can state that the majority of benchmarks established for this period were exceeded or show a positive trend. Following are a few of the more important achievements:

Oral Rehydration Therapy (ORT)

The utilization of oral rehydration therapy (ORT) appears to have increased from 22% in

[1]The second KPC survey (July 1993) was performed in the communities which were visited at least four times in the five months prior to the survey.

1992 to 38% in 1993. A similar increase also can be observed for maintenance of breastfeeding, use of oral rehydration salts, and liquids. The continuation of solid foods during a diarrheal episode is still low both in knowledge and practice. Recognition of the danger signs of dehydration during diarrheal episodes showed a tendency to increase, but is still inadequate. Only one in four mothers recognizes the signs of dehydration.

Expanded Program on Immunization (EPI)

A positive trend in immunization coverage of children under one year of age[2] against measles was also noted, 25% in 1992 compared to 58% in 1993. The complete immunization coverage of children under one year of age, however, is still low due to the scarcity of BCG in Guatemala. It is evident that the population's access to EPI has improved, i.e., 66.7 % of the children under one year of age are vaccinated with DPTl and the drop-out rates show a tendency to decrease since the baseline, though they are still at 13%. It is important to mention that the benchmarks established for this stage of the project have been exceeded, with the exception of BCG and TT.

Little progress has been made in mothers' level of knowledge about immunization, i.e., only 32% of the mothers knew at what age a child should be immunized against measles, and only 3.7% knew the reason for the TT vaccine.

Vitamin A

The coverage rates for Vitamin A supplementation have a positive tendency, with 0.7% in 1992 and 28% in 1993. The number of mothers knowledgeable about Vitamin A in 1993 has increased almost four times compared to 1992 data.

Breastfeeding and Infant Feeding

Breastfeeding immediately after birth increased: 66% of the mothers breastfeed colostrum and initiated breastfeeding during the first eight hours. Exclusive breastfeeding, however, according to the definition of the MOH, is only 8 % . The early introduction of food, before four months of age, is practiced by more than 40% of mothers, and delayed introduction of food, after eight months of age, is practiced by almost 15% of mothers in the target area.

Maternal Health and Birth Spacing

Access to prenatal care and immunization with TT remains low. Also, the demand for contraceptives is not at all unsatisfied, the user rate of mother's who don't want children in the next two years is 1.8%.

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[2]The survey collected population information on children 12 to 23 months. This measurement represents vaccination coverage when this cohort was less than one year of age. See the manual on Cluster Surveys of the Expanded Programs on Immunizations, Geneva, 1991.

Qualitative information collected has provided the evaluation team with the following findings:

- Mothers know the project's immunization and ORT activities;
- Mothers know the project staff and hold regular meetings;
- Mothers don't know about Vitamin A, although almost a third of their children have received the supplement;
- The local authorities (auxiliary mayors and other community leaders) actively participate in the project and are very interested in learning about other ways to participate;
- Mothers are interested/motivated and solicit more information. They actually propose alternatives to the project;
- Promoters actively participate in the project;
- The regular follow-up/supervision of the TBAs by TBA peer supervisors with the same social and cultural background is very effective;
- An excellent level of coordination exists between the MOH and Project HOPE at the community level (referrals).

2. Relevance to Child Survival Problems

The primary causes of infant mortality and morbidity remain the same as at the beginning of the project. As previously mentioned in the proposal and in the DIP, infectious diseases, diarrhea, and pneumonia continue to be the main causes for almost 90% of the deaths and private and public health service utilization. The project activities, in the way they have been designed and are being implemented, are an appropriate combination of activities that support the MOH to increase the populations' access to health services and meet its demands. Moreover, the project plays a very important complimentary role by directly working with communities to increase access to technology, materials, and information which make it possible for the project beneficiaries to become more involved in activities that improve the local public health situation and social organization.

Providing the MOH with technical and organizational support has made it possible to implement a combination of activities such as immunization, supplementation with Vitamin A, distribution of ORS and other essential medicines, with community organization activities that address the demand for services and production of vegetables and foodstuffs, among others.

3. Effectiveness

The interventions chosen for working in Totonicapan were selected because of their high effectiveness and low cost. The adaptation of these strategies for this socio-cultural climate is very effective. One can observe how the EPI activities have increased the Health Area coverage levels (see the section on Accomplishments). Because of this the MOH health services have been so receptive to logistical support provided by Project HOPE. Likewise, activities for control of diarrheal disease and cholera have substantially increased the

population's access to ORT due to the project's strategy of community organization and the formal participation of community leaders. The project concentrates its activities in geographic areas and on priority age groups. This high-risk strategy makes it possible for the project to reach benchmarks in a short period of time, making use of its limited resources.

Some aspects of the interventions could be better defined. The maternal health activities for training traditional birth attendants are very appropriate. However, TT immunizations and child-spacing activities require more structure and integration to achieve better coverage levels. There is no concrete target population to control reproductive risk. In EPI, the target population is children under two years of age. Those under one year of age are most susceptible, those over two years of age have already been exposed to preventible diseases through immunizations. Therefore, it would be more effective to work with infants and children under one year of age who only represent approximately 3.5 % of the population.

Primary obstacles for the implementation of project activities have been identified and include:

- A disperse population (geographic access);
- Cultural barriers: customs, beliefs, Mayan world vision. Field staff are receiving Quiche language training (cultural access);
- The project has a native Quiche speaker. Field staff are currently training in Quiche. In maternal health activities, however, the TBA peer supervisors, who receive stipends, all speak Quiche and assist their supervisor by interpreting when she is working with the other TBAs or the target population (cultural access).
- Health services are not always open during appropriate hours;
- Some health facility staff with a poor attitude in their treatment of mothers; and
- Unemployment, poor agricultural production (economic access).

4. Relevance to Development

The project has increased the benefit to families by promoting individual development of families, through education. However, little has been done in regards to the participation/organization of beneficiaries to demand health services or assume control over the management of health resources. A common remark of health personnel is that the population "doesn't identify health as a priority". Nevertheless, the evaluation team believes that formal and informal community authorities have directed a great deal of effort toward improving public health conditions, i.e., searching for resources to improve medical services for the population. It is obvious that the target population has a very different perspective than the health workers with respect to priorities for medical care and public health, which needs to be considered.

The traditional health system utilized frequently in Totonicapan, has no relationship with the health system of the MOH. The project is developing strategies in disease prevention, health promotion and medical care with the MOH and a group of TBAs to overcome this barrier.

Women participate extensively in the program's activities, especially in activities related to education, communication, and in the work of the TBAs.

5. Design and Implementation

5.1 Design

The activities with mothers is concrete, clear, and easy to measure. However, in the area of child survival, community activities have low coverage and the population's participation does not have clearly established objectives or processes. This is, in part, due to the different characteristics of the implementation strategies which are summarized in the following table:

Characteristics	Maternal Care	Child Survival
Community volunteers implementing the activity	TBA chosen and trained by other TBA (familiar) and supervised by stipended TBA peer supervisor.	Promoter chosen and trained by MOH staff and occasionally supervised by MOH staff.
Socio-cultural perception of the community	Satisfies a demand for concrete services in an acceptable, traditional manner: delivery.	Providers (volunteers) do not meet concrete needs, nor are they identifiable by any specific activity. Their level of activity depends on the interest and qualifications of each volunteer.
Community incentives for participation and effectiveness	Providers are remunerated for specific services. The TBA peer supervisor receives a stipend from the project.	Providers do not receive remuneration.
Perception of MOH personnel	TBAs represent an accepted extended channel of social and cultural coverage for disease prevention and health promotion activities. They are supported with materials and a certain level of acceptance of their referred patients.	Promoters are an alternative to "community participation", lack a clear role definition, and are difficult to access because of their lack of resources, language, and interest. Child survival activities are limited to immunization campaigns and promotion of ORT.

The DIP lists the objectives and indicators for project implementation. Project staff have responded well to change and adapted strategies that did not respond well to the local

situation in an innovative way.

The project area has been limited and, accordingly, reduced.

It is important to mention that the project's target area was reduced because the program only received about half of the funds requested. This made it necessary to revise the objectives originally established in the DIP.

5.2 Management and Use of Data

The project uses an elaborate system of data collection that provides adequate information for reports required by USAID and for Project HOPE. The modification of indicators, setting of more realistic benchmarks, and clarification of interventions and strategies are examples of the use of data collected during the baseline survey.

The indicators used are very appropriate, and, for the most part, are measured quantitatively. Some efforts have also been made to collect qualitative data. It is important to mention the use of the KPC survey as a baseline and as a way of measuring change in the basic indicators at the project's midterm.

The present HIS is not simple enough and its utility is limited because it is not used enough for program supervision and monitoring. The system for monitoring indicators at the community level and at the district level has not been completely developed. This is due to the fact that the system at that level is not very reliable and reporting is irregular because of the level of availability of the active promoters and the reliability of their reports. Little time has been dedicated so far on a systematic analysis of the information that has been collected.

The community level indicators should be reviewed/redesigned because the information that is being collected at this point in time is not used locally but only to report to the central office. The number of indicators should be reduced and benchmarks should be set based on these indicators. See specific recommendations for EPI, CRT, and pneumonia.

5.3 Community Education and Social Promotion

The program has made an appropriate effort to integrate health education with immunization and nutrition services provided to the target population. However, the messages are not clear enough, primarily due to the interpretation of technical norms and the language. Limited qualitative information has limited the production of educational materials and strategies to provide the target population with ways for changing their practices.

Project staff have technical and time limitations to develop education and communication activities. Project staff are responsible for many activities, resulting in a limited coverage of health education. The role of the staff and volunteers in communication is too wide and diversified. The different interventions have too many messages, and each staff can choose different ones for the same intervention.

At this point, the strategies and the content of the messages to the target population are primarily directed at improving knowledge; as such, there is a gap in the content and strategies to promote behavior change.

5.4 Human Resources for Child Survival

The field staff is very solid technically. Because of recruiting problems, the field staff was without a director for almost six months. At present, there is a complete team. The intervention strategies are currently being modified, which simultaneously adapts the scope of work of the different members of the team. The project is moving from general and wide scopes of work to roles that emphasize coordination, facilitation, and monitoring. Likewise, the various levels of the counterpart relationship with the MOH are in an ongoing process of definition.

The traditional sector, particularly the TBAs have been involved deeply in the project. There are additional efforts to involve other types of traditional human resources. Currently, the role of the promoters is being revised because of the lack of specificity and effectiveness of their work. Health promoters and volunteers respond to multiple needs of the project and other organizations. Their role depends on their individual interest and availability.

5.5 Supplies and Materials for Local Staff

Distribution of educational materials has not been an emphasis of the program because of the language and level of literacy. It is clear that the alternatives for communicating health messages to a population who speaks a native language that is not written are limited; more effort and research regarding what has been done in other parts of Guatemala is necessary. Oral rehydration salts (ORS), Vitamin A, and medicines have been delivered via different mechanisms, including the TBAs.

5.6 Quality

The project team identities strongly with the population with whom they are working. They have the technical knowledge and abilities to develop the activities of this project. In general, personnel working with the mothers convey simple messages that are perfectly adequate.

Certain aspects of the health messages need technical revision, and inservice training for staff (control of diarrheal diseases, control of pneumonia, infant feeding). More emphasis is required in facilitating activities at the community level and less in direct contact with mothers, as the majority of the project personnel do not speak Quiche. In this area, the project continues to develop very interesting strategies, such as the use of human resources from the community to educate and supervise volunteers and mothers. A good example of this is the stipended TBA peer supervisors, contracted by HOPE. Similarly, strategies are being developed to extend coverage in the control of diarrhea utilizing the Community Oral Rehydration Units (CORUs), which have great potential to provide supplies and information

to mothers who have children with diarrhea.

5.7 Supervision and Monitoring

The time invested by project staff in supervision is done primarily in the field. There are two hierarchical methods of supervision:

- One is for the activities of immunization, education of mothers in child survival strategies and promotion of gardens. A physician supervises the work of the field staff that develop activities directly in the communities. This method of intervention is limited because of the intervention strategies being implemented: multiple activities, inadequate definition of the role of the field staff, activities developed differently in each sub-area of the interventions -- depending on the initiative of each field staff -- limitations of field staff based on their education and their different social, cultural, and ethnic background that differs from the population whom they serve. These characteristics have a negative impact on supervision which is sporadic and without clear procedures or objectives.

- The other form of supervision is for maternal health activities and concentrates on improving delivery conditions and somewhat less on referrals for prenatal care, TT vaccinations, and child spacing services. An obstetrical nurse trains, facilitates, and coordinates a group of TBAs (TBA peer supervisors), women of the community, who provide information and supervise TBAs in the communities within the intervention area. This strategy is extremely interesting and is based on a profound analysis of the limitations of the health services and the project which make it difficult to reach the TBAs with appropriate and sensitive programs based on their cultural reality. The fact that a TBA trains a woman from her own community and within her own language and cultural perspective to attend births and succeed her in the future, is traditional and therefore nothing new. However, the fact that a program for improving prenatal care and deliveries utilizes Quiche women with vast experience in prenatal care and deliveries, and that they mobilize them to teach other TBAs is extremely innovative and has extraordinary potential for development. The project has forms and supervision procedures. The work of the TBA peer supervisor utilizes four different strategies for supervision: small group meetings with TBAs, joint meetings with the MOH, monthly TBA peer supervisor meetings, and a visits to TBAs for direct supervision.

As one can observe, the program is testing two alternatives and one of them proves to be more culturally sensitive, effective, and the more appropriate.

Various activities are directly monitored by the field staff, e.g., the community pharmacies. That supervision is regular, however, it should be more systematic.

5.8 Use of Central Funding

The technical and administrative monitoring from HOPE's international headquarters has been important for project development. In spite of the autonomy of the field office, follow-up of project activities has occurred without major obstacles. The project hopes to utilize all of the funds programmed through the project's end. A total of 15% of the funds for the Guatemala program were allocated to headquarters operational costs. Until now, less than half of those funds have been used for the following reasons: (1) Until July 1993, Project HOPE only had two full-time technical staff to administer 10 projects. A third member, with a specialization in health education, joined the team July 1, 1993. This person will work predominantly on improving aspects of education and communication in all of the programs.

Field staff and HOPE Center staff are aware that an increase in technical support and monitoring can improve the quality of the project strategies. (2) The MCH Director at HOPE Center was on partial maternity leave during three months in 1992. Communication with the project was less direct and less frequent during this time and the loss of the Project Director during the same time period made the situation somewhat more difficult.

The project regularly receives technical materials from headquarters, as well as materials and child survival reports of other projects. It is important to mention that, in June 1993, the Guatemala Program Director and the technician in charge of the HIS participated in a lessons learned workshop on the development of health information systems conducted jointly with staff from Project HOPE's other child survival programs.

5.9 PVO's Use of Technical Support

The project has received technical assistance to develop the baseline survey. In general, they have needed technical assistance with HIS development and in the development of communication materials. The technical assistance they have received has been very important for the technical team. Recently the team repeated the KPC survey without external technical support. Most of the technical assistance for the project comes from HOPE Center. It is likely that technical assistance will be needed for the development and implementation of pilot studies (operational research) for the organization of communities to: increase the demand for immunizations, provide ORS supplies, gain ethonographic information to improve the health messages and the channels of communication in the control of pneumonia and diarrheal diseases. In maternal health, more information and technical assistance for 'IT immunization and birth spacing should be obtained, especially with respect to monitoring and supervision of activities.

5.10 Assessment of the Counterpart Relationships

The project's counterpart is the Ministry of Health of Totonicapan. There are certain communication problems, e.g., MOH personnel who do not understand the program's objectives or work methodologies and want to take actions that affect the project staff.

However, in general, the relationships are excellent. The participation of the Health Area Chief in the evaluation, as well as key technical staff members, is an indication of respect and interest in achieving joint objectives.

Immunization activities, support to promoters and TBAs, the work with the volunteers, Vitamin A activities, CORUs, maternal health, and the HIS are of interest to the MOH in terms of program implementation and coordination. There is a bilateral interchange of supplies and resources between the MOH and Project HOPE and other NGOs. The counterpart (MOH) is sufficiently developed with the technical skills and resources to implement child survival activities. There is continuous dialogue with the MOH to implement the project activities and to get health services to strengthen the child survival activities.

5.11 Referral Relationships

The great majority of the community referrals made by TBAs and promoters are well received by the health services of the MOH and are handled well. The procedures and forms should be revised and the information should be better utilized. The current referrals of the TBAs focus principally on prenatal care and TT vaccinations. The primary obstacles for referrals are rigid schedules of the Ministry's health facilities, closed health facilities, and language difficulties.

5.12 Liaison with Work of PVOs and NGOs

Coordination exists with PVOs, and Project HOPE plays a leadership role. Examples are:

- A workshop to exchange ideas (Coban);
- Common criteria for AID evaluations in both technical and administrative aspects.

In Totonicapan, an exemplary level of coordination exists between the NGOs and the MOH. They have developed an integrated annual operating plan (IAOP). Joint planning of activities is very good, however, operational aspects still require some refinement. An example of the lessons learned now being used by other NGOs is Project HOPE's use of methods for approaching traditional communities with an anthropological focus, which resulted from experiences of an Italian assistance program.

6. Sustainability

The most important step taken to assure sustainability of this project has been the working relationship with the MOH to integrate the project's activities into the annual operating plan of the Health Area. Also, the work in the field between the project's personnel and the personnel of the health facilities improves the possibilities for sustainability. However, more effort is required to develop the technical and administrative capability of the MOH in order to continue the program interventions, especially those that require work at the community

level.

The strategy of TBA peer supervisors has certain elements that potentially make it sustainable. Included in that strategy are:

- Leadership training;
- Organization of a support network;
- Utilization of resources within cultural and traditional boundaries;
- Meeting a demand that is financed by the community itself.

The incentives received by the TBA peer supervisors have contributed significantly to the development of their work. The general perception in the different communities is that the project's interventions are both necessary and effective. It is not very probable that the TBAs will continue their present efforts in the project without significant incentives.

Concrete plans have not been developed that certain project activities become institutionalized by local NGOs.

7. Recurrent Costs

The community pharmacies are one activity that potentially may make it possible to recover the cost of needed medicines in some communities, which is necessary to establish a system to supply essential medicines on a permanent basis. A great deal of work remains to be done to plan and perfect this strategy.

Unfortunately, the MOH has a policy that impedes charging for services, and thereby financing their delivery. This policy will be very negative in the long run because resources available in the public sector are very scarce and the availability, quality and effectiveness of services will diminish. The project is not developing other cost recovery activities.

IV. DISCUSSION AND CONCLUSIONS

The following conclusions are the results of the work conducted with the evaluation team. However, the opinions expressed here are the sole responsibility of the author.

A. Community Outreach

1. Extension of Coverage of EPI, ORT, Control of Pneumonias, and Child-Spacing.

The principal achievements observed were the support to the public sector in immunizations and interventions to control diarrhea. The effect on the target population is evident as demonstrated by the KPC survey. In the same manner, the survey indicates selected areas where some interventions did not meet demand, such as control of childhood diseases and

maternal care, specifically in TT vaccinations, child-spacing, and infant feeding. However, it is important to note that this program has been implementing these coordinated interventions for a very short time. The change in program directors left the local office without leadership for various months. It is only recently that appropriate and direct interventions were reviewed and implemented. This explains why interventions that appear to have a better strategy of involving field work (maternal health) do not show an improvement in their indicators when compared to the 1992 survey, while interventions that basically continue to promote the "normal" strategies of the MOH, such as is the case with immunizations, are improving the level of coverage. In fact, even though one does not see the fruits of the efforts to expand coverage as a direct result of the program, very positive indications were observed in such areas as maternal health, improvement of intrapartum care, and community organization for women's health. However, the outlook for TT vaccinations and child-spacing is not as positive. Regarding child-spacing, the apparent disinterest of project personnel to satisfy the unmet demand for modem contraceptives by the feminine population is a concern. (Only approximately 1.8% of the female population that does not want to have a child during the next two years has access to modem contraceptives,)

There also is concern regarding the development of strategies to expand coverage for the control of diarrhea and for immunizations. Although the intervention for the control of diarrhea appropriately utilizes the CORU as a strategy, attention is drawn to the lack of information of field personnel regarding norms and procedures for control, the lack of supervisory procedures, the absence of intermediate goals, and the desire of each field staff to make his/her own time schedule. At the current pace, little will be achieved in terms of the implementation of operational CORU's with an adequate and controlled level of quality.

Regarding immunizations, it is not very realistic to assume that coverage will rise this year to the level necessary to achieve herd immunity by using only immunization campaigns. This is a great concern, given that coverage was measured only in communities where Project HOPE personnel have been immunizing. There are many areas where the immunization levels must be much lower, and this in the context of the year in which one must work to prevent a measles epidemic in 1994. In addition, reliable epidemiological surveillance systems do not exist in the MOH, so that an epidemic could catch the Ministry totally off guard. The strategy of continuing to immunize with project personnel and to logistically support the Ministry is not sufficient.

No activity has been initiated to control pneumonia, the primary cause of mortality and morbidity in children under five. It is not adequate to blame the MOH for its inactivity. Funds have been provided to Project HOPE to technically and financially support the control of pneumonia in the target population. If the MOH has problems developing strategies, norms, and procedures to control pneumonia, Project HOPE with its excellent team and international experience, can contribute to the reduction of this problem. Also, it is a commitment made to the donor.

2. Community Organization to Meet Demand and Provide Health Services

During the evaluation, it was established that local institutions and mechanisms exist that are capable of developing and improving the project strategies for maternal care, immunizations, disease control, and education. Also, information systems exist, e.g., vital events, that can strengthen the capability to monitor, evaluate, and watch over the health in the communities.

The actual level of organization and the interest to participate are evident. However, not enough has been done yet to involve the communities, its leaders and institutions, to utilize and strengthen the local institutions. This weakens the potential sustainability of the project. This is understandable given that there have not been project personnel with experience in community work for an adequate time period. This should be changed with the new Director, now that personnel are more sensitized to this need. Support to community organization is critical to achieve realistic strategies of expanded coverage of health services and for local initiatives and strategies to improve child survival to succeed.

The principal limiting factors for the development of this aspect of the project is the work plan of the field staff, who are asked to provide multiple services themselves, and the language difficulties.

3. Evaluation and Communication

The current project mechanisms to conduct education and communication are not sufficient. It is not possible to educate thousands of mothers directly in small groups with only six staff who do not speak Quiche. Even though the field technicians have received "retraining," it still is evident that this has not been sufficient. Currently there are many messages and interventions. Certain concepts of child feeding (weaning, feeding during illness and convalescence) and other norms for disease control and public health are not understood by the field personnel.

It is important to prioritize the interventions to be introduced or to strengthen mothers' knowledge. The methodology being used is not the one used in traditional education. The project should not only introduce up-to-date knowledge but in a practical sense attempt to change practices.

Current educational activities (informal talks, home visits) do not meet the beneficiaries' concrete needs. These activities should be focused in such a context so as to be of direct benefit; as an example: provide education about infant feeding to mothers with children suffering from feeding problems and provide information to mothers with newborns or children under one; provide information about the nutritional management of children with diarrhea to mothers with children having diarrhea; provide information about child-spacing to couples with newborns or an impending delivery. Only in situations such as those described will knowledge be converted to practices because it has an immediate and direct benefit. The transmission of knowledge to mothers about feeding is not practical. The same is true of

various topics such as: services of the CORU, food distribution, demonstration gardens, etc. Materials must be found and utilized which have been used and validated in programs in Quiche communities. If such materials are not available, messages and methods should be validated through small, quick operational research studies, and appropriate materials produced.

The procedures for training volunteers should be more systematic and specific. They should emphasize specific, practical points such as when and how to rehydrate a child with ORS. Personnel do not have materials/guidelines available for case management of such children and pregnant women. Therefore procedures vary according to what each provider remembers.

B. Organization of the Program to Provide Child Survival Services

1. Organization of Human Resources

The current structure of the field team limits the development of desired strategies to be implemented. In the immunization program, the time required of the field staff to go and vaccinate all of the children who need it means they must put aside other interventions. This is one of the reasons why they had to limit, and will try to limit even more, the target area of the project. The field staffs role should be revised so they become a catalyst of resources and facilitate the organizational process for the vaccination of children.

The CORU's strategy is incomplete if there is no logistical support and quality control of the care provided. The current role of the HOPE field staff is not homogeneous because they have different levels of interest for each activity, primarily due to their individual training. As an example, the social workers, obviously, do not feel comfortable controlling the quality of the management of diarrheal cases.

Field workers receive a very modest amount of technical support and supervision. They do not have goals for their activities, and systems for control, monitoring and evaluation have not been developed. It is not possible to develop adequate strategies and procedures to expand coverage and organize the demand for services without trained technical personnel interested in developing interventions in the communities.

The project has only one person working in women's health and that person concentrates her time on care during delivery and expanding coverage of prenatal care. This level of support is providing a good quality of services, but will be insufficient if one intends to expand coverage. Certain aspects of the project such as the monitoring of interventions and the introduction of information and services to promote child spacing will be put aside until the end of the project because of a lack of resources.

It is not very realistic to depend on the promoters for the development of child survival activities at the community level. These promoters have any number of activities, not only in health but also in other areas (agriculture, teaching reading and writing, etc.) in addition

to earning their own livelihood. Many of these individuals dedicate Saturday mornings to "being promoters." Others participate only in the training courses and some exceptional ones are active. This is not new nor does it only occur in Guatemala. It is the experience of all countries that have programs to train and use promoters. It is important to take note of certain organizations and individuals within the community who have common interests with the project with respect to the different interventions and then achieve a more realistic and timely participation in project activities.

2. Planning of Interventions and Follow-up

The planning of the implementation and monitoring of interventions is not complete. The revised plans do not have mid-range (annual) benchmarks and, therefore, it is difficult during the year to follow the coverage of specific interventions at any one time. Also, the assignment of priorities to the interventions is not the result of planning and a careful analysis of resources. Basically priorities are assigned weekly as another one of any number of daily tasks. It is necessary to put aside many of the activities currently being conducted and concentrate on a very few that can be completed successfully with the time and resources available. The highest priority is to revise the benchmarks included in the DIP and both prioritize what is feasible and modify the objectives. The new objectives and priorities should be reflected in the annual workplan, by areas of intervention that can be monitored.

3. Coordination with the MOH and the Target Communities

Lines of communication and coordination with the MOH should be clarified for better utilization of information and resources. Referrals from the communities (from TBAs and volunteers) to the health services should be structured and supported so that the individual referrals are made to the most appropriate local resource; and the response from the health services is responsive to the epidemiological risk involved.

Participation in the development of child survival interventions in the communities by formal levels of local and community leaders is minimal. It is important to more fully integrate the elements of community organization, information, supervision, control and evaluation.

V. PRINCIPAL RECOMMENDATIONS

'A. Project Organization: Strategies and Procedures to Increase the Effectiveness of Project Interventions

1. Coordination with the MOH to Assure Continuity of Interventions Currently Programmed

Although the evaluation process incorporated the executive and field personnel of the MOH and Project HOPE into the analysis and development of recommendations, it is important to present the final evaluation and recommendations to the Executive Committee (consisting of

Project HOPE, the MOH health area and districts) to assure it is used as a common point of reference to be appraised and discussed by all participating parties. Periodic communication should be established among Project HOPE, the health area, and the districts of the MOH (i.e., the POA committee). It is recommended that Joint HOPE/Ministry Planning and Evaluation committees at the district level be established. The functions of the committees should be to:

- Coordinate the plans and activities of the health district chief with HOPE's;
- Review and discuss information about the project; make recommendations;
- Generate commitments for the implementation of project activities;
- Promote the participation of institutions and officials at the district level in public health decisions; and
- Participate in the preparation of the annual operating plan of the health area.

2. Intervention Priorities: Strategies and Procedures

The project should focus priority on the following interventions:

a. Immunizations: Tracking of Children

(1) ***Target popuhtion:*** Newborns and children under one,

(2) ***Stmtegy:*** Place greater emphasis on involving local officials (auxiliary mayors, policemen) to identify and track the target population (newborns and infants under one). Support these officials to develop a certain level of supervision with the community volunteers responsible for identifying the infants and bringing them for vaccination. The effect of a system of greater participation by local officials should produce a greater possibility for sustainability and the involvement of the local authorities in public health activities that need to be strengthened.

(3) ***Procedures for:***

Volunteers Responsible for Vaccinations (RVs) (mother or father with a child that must be vaccinated this year, promotor, TBA, Principal, etc.) available in each community:

- Identify the target area (maximum of lo-15 children per community sector);
- Identify newborns during the year;
- Open vaccination card and fill in dates;
- Report to the auxiliary mayor (or policemen, community secretary):
  new children,
  children that were vaccinated this month, and
  children who have completed their immunizations.

- Assure the vaccination of the children.

Auxiliary Mayor (policemen, community secretaries, etc.)

- Identify who is responsible for immunizations (RV) for each sector in the community;
- Train the RVs to properly use the vaccination cards and the report to the auxiliary mayor of newborns and children vaccinated (name and type of vaccine);
- Distribute the vaccination cards;
- Provide information to the health services and to Project HOPE concerning the following indicators:

  Number of groups;
  Percent of children;
  Percent of children vaccinated this month;
  Percent of newborns;
  Number of children who have completed their vaccinations.

- Monitor and supervise the RVs. Use of a supervision guide.

Rural Health Technicians (MOH/HOPE)

- Train the auxiliary mayors how to complete the vaccination card, and train and supervise the RVs;
- Monitor and supervise the mayors; use of a supervision guide;
- Provide immunization cards to the mayors;
- Coordinate and assist the mayors to get the population being tracked vaccinated;
- Meet monthly with the mayors for decision-making.

b. Care of the Sick Child: Case Management at the Community Level

(1) ***Target population***: Children under two.

(2) ***Strategy***: Place a greater emphasis on involving the local authorities (auxiliary mayors, policemen) in the implementation of the CORUs for local case management of diarrhea and ARI. Help them develop a supervisory system for the community volunteers who are the responsible for the proper identification of the CORUs and for the distribution of necessary supplies (ORS, antibiotics and food).

(3) ***Procedures for***

Volunteers responsible for CDD and ARI (mothers, promoters, TBAs, principals, etc.) available in each community:

- Identify target area (maximum of 25 families per community sector);
- Provide care for cases in assigned area. Give ORS for diarrhea and antibiotics for ARI;
- Refer children whose needs cannot be met;
- Give practical demonstrations on case management and infant feeding;
- Report to the auxiliary mayor (or policemen, community secretary):
  Number of functioning CORUs;
  Number of children receiving care;
  Number of salts, antibiotics, and supplements distributed;
  Number of children referred.

Auxiliary mayor (policemen, community secretaries, etc.):

- Identification of persons responsible for the CORUs.
- Distribution of supplies;
- Provide information to the health services and Project HOPE;
- Monitor the inventory of supplies (ORS, antibiotics); use of forms;
- Supervise and monitor volunteers; set benchmarks.

Rural Health Technicians (MOH/HOPE):

- Train auxiliary mayors in inventory control of supplies;
- Provide supplies to mayors;
- Supervise and monitor mayors.

c. **Maternal Care and Child Spacing**

(1) ***Target population***: Women of fertile age.

(2) ***Strategy***: Continue to work with the TBA peer supervisors. Concentrate on activities that will help the TBAs to identify pregnant women and refer them for vaccination and education services. Promote the distribution and use of contraceptives. Coordinate with APROFAM to train health services staff to evaluate patients and to prescribe modem contraceptives. Utilize the available facilities of APROFAM .

(3) ***Procedures for:***

The TBA in each community:

- Define target area;
- Provide care. Provide education, assist with delivery, and make referral to obstetrical services;
- Give practical demonstrations of breast and nipple care for exclusive breastfeeding;
- Make reports to TBA peer supervisor and the auxiliary mayor (or policemen, community secretary) about:

  Number of women of fertile age in target area;
  - Number of referrals of pregnant women;
  - Number of deliveries assisted;

  Report of newborns to the volunteer responsible for vaccinations;

  Number and type of contraceptives distributed;
  - Maternal deaths;
  - Perinatal deaths;
  - Mothers with health cards;

  Pregnant women who have received two vaccinations of 'IT.

The TBA Peer Supervisors:

- Identify local **TBAs;**
- Distribute supplies;
- Provide information to the health services and Project HOPE;
- Monitor inventory of supplies (contraceptives); use of forms;
- Supervise and monitor **TBAs;** set benchmarks.

Rural Health Technicians **(MOH/HOPE):**

- Train and support the TBA peer supervisors in inventory control of supplies;
- Provide supplies to the TBA peer supervisors; and
- Supervise and monitor the **TBA** peer supervisors.

Maternal **Health Supervisor:**

- Train and support the TBA peer supervisors in the technical aspects of maternal health;
- Provide supplies to the rural health technicians **(MOH/HOPE);**
- Supervise and monitor rural health technicians **(MOH/HOPE).**

d. Community Pharmacies

The community pharmacies that the project develops should be one of the strategies that provides solutions for two concrete problems; the availability of medicines in isolated communities and income generation as an incentive for volunteers and community promoters.

They should be developed as a strategy to logistically support the community volunteers by providing ORS, ARI antibiotics, and materials for promoters and TBAs. This strategy should make the pharmacies more dynamic and expand the list of items offered.

Simplify and improve the instruments being used to control the inventory of medicines and organize the pharmacies administratively. Supervision should include three basic aspects:

- Administrative/accounting process: three levels of control - pharmacy, community and HOPE;
- Technical process: The MOH should specify the norms and procedures for the use of medicines and supplies;
- Financial process: pricing policies that will provide revenue to cover purchasing and administrative costs and the salary for one person.

Technical assistance is needed to:

- Revise and develop procedures to be followed at the community level - two weeks/ an accountant or auditor;
- Train pharmacy personnel or committees jointly with district health personnel in the administration, control, and auditing of pharmacies - one week to prepare the training program and one week for each pharmacy/accountant or administrator;
- Study and determine local demand for supplies and materials and determine realistic costs and prices - one month/administrator or marketing specialist.

3. Human Resource Development; Task Based Training

It is necessary to prioritize tasks in order to define the number, roles and functions of project personnel. Certain deficiencies in the supervision of field staff exist and will continue. A person with experience in both the technical field and administration is required.

Continuing education of the MOH and HOPE personnel is required:

- Establish benchmarks and monitoring of indicators;
- EPI, ORT, ARI and maternal health strategies;
- Workshop on the role of each person in each strategy;
- Specific components of infant feeding;
- Assessment of sick children and case management of diarrheal diseases and ARI;
- Education for mothers about danger signs and seeking care at the health services;
- Training volunteers.

The models for Supervisory Skills for the Control of Diarrheal Diseases (PAHO/WHO) and the modules for the Management of Pneumonia (WHO/PAHO) can provide important information for the development of these continuing education activities. Also, there are five day workshops about diarrhea provided by PAHO with national facilitators. Information is available from PAHO in Guatemala, Clapp & Mayne/Guatemala, or Christopher Drasbeck, Diarrheal Control Program, PAHO/Washington.

4. Planning, Monitoring, and Quality Control

The presence of other complementary projects benefit this project if the components of each project are clearly defined. The MCH program could address the service delivery component and therefore some of the recommendations in this report should be addressed by that project. In the same way, the Vitamin A project would be the most appropriate to work on an integrated feeding program with emphasis on Vitamin A, however, there should never be an education program focusing solely on Vitamin A. The self-defeating effects of these vertical strategies that only promote the use of Vitamin A, iodine or iron, sending an incomplete and wrong message to the target population have been observed. The recommendations regarding infant feeding, including exclusive breastfeeding, the management of feeding during diarrheal episodes, and feeding during and after infant illnesses probably could be promoted by the Vitamin A program.

It is important to establish benchmarks with the recommended indicators and utilize these to monitor field activities. The first level of decision-making and management should be at the community level. The volunteers and their local supervisors need to be adequately trained with simple methods, without forms or written instruments if possible. Use counting methodologies as developed by Project Concern International in Santiago Atitlan/Guatemala. A second level of programming and monitoring of indicators should be done by the rural health technicians, who also require training and support. A third level of programming and monitoring should be the responsibility of the district health office in coordination with the supervisory personnel of Project HOPE. A fourth level should be the HOPE office in Quetzaltenango.

The technical officer of Clapp & May&Guatemala should be contacted to learn about their plans to support the MOH in the quality control aspects of health services at the community level. They are developing an activities plan for 1994-95. They are developing activities to support quality control in the management of diarrhea, ARI and EPI procedures.

B. Education and Communication: Demonstration and Practices in the Care of the Sick Child

As indicated in the section on priority interventions, broader and more flexible participation by the community should be sought. The current role of the promoter is not clear. The promoter should continue to be used to bring the communities and health service together and help in the vaccination campaigns.

Incentives for the leaders and the volunteers should include: their identification as volunteers (document, identification card, training certificate, materials, T-shirts, caps, etc.); public recognition for their work (certificates); special invitations to visit local offices and establishments; use of their identification card to utilize public services (this would need to be negotiated at the district level); provision of materials for their activities; supervisory visits.

Modification of mothers' practices should focus on specific and concrete aspects, such as:

- Preparation of weaning foods for: three recipes for a variety of local foodstuffs for each age group (under 4 to 6 months; under 7 to 9 months; under 10 to 12 months; under 1 to 2 years). Promote high caloric intake, mix oil or cream in each feeding for children), and more frequent meals (4 to 6 times a day) and in small quantities (volume in accordance with the gastric capacity). Promote practical demonstrations in the preparation of these recipes.

- Management of diarrheal espisodes - homemade food and liquids. Larger quantity of food after episodes of diarrhea and illness. In the CORU or health services when the mother asks for advice.

- Management of dehydration - ORS. A greater quantity of food after the episodes and illness. In the CORU or health services when the mother asks for advice.

- Danger signals of dehydration (thirst, repeated vomiting, fever, blood in the feces, will not eat or drink, worsening of the above signs). In the CORU or health facilities when the mother is seeking services.

- Danger signals of pneumonia (increased rate of breathing, indrawing). In the CORU or health facilities when the mother is seeking services for **ARI** or diarrhea.

Additional qualitative information is needed (focus groups, key informants, interviews, etc.) to identify communication gaps. It is important to establish practical methodologies for training volunteers and mothers in: infant feeding, management of diarrheal disease control and ARI referrals. All of these messages should be technically improved. One alternative is to develop intervention strategies in two phases:

1. Intervention Design

- Revise the educational material and methodologies for working with volunteers and mothers and produce; guidelines and procedures for training TBAs and other volunteers (three months). One month of technical assistance is required.

- Workshop to develop procedures for community interventions (two days). One week of technical assistance is required.

- Testing and validation of procedures in a typical community (one week). One week of technical assistance is required.

- Training of HOPE and MOH personnel in procedures for each intervention in a typical community (one week). One week of technical assistance is required.

- Monitor communities and personnel trained (three months). One week of technical assistance is required.

- Evaluation workshop and revision of procedures (two days). One week of technical assistance is required.

- Develop new procedures (one week). One week of technical assistance is required.

2. Implementation of intervention strategies:

- Train MOH personnel in procedures (three days). One week of technical assistance is required;
- Develop an implementation plan by District (one week);
- Support the Ministry in the development of the plan;
- Monitor indicators;
- Annual evaluation of the activities plan.

ANNEX 1

Sources of Information

Document Sources

- Reports
- Surveys
- Information system
- Studies
- Counterparts' documents
- Printed materials (manuals)
- Profiles, curricula
- Plans, proposals, etc.

Individuals

- Mothers (group)
- District Chief, MOH (Dr. Figueroa)
- Auxiliary nurses
- Rural health technicians (group)
- Promoters (8/12/93)
- Traditional midwives (group)
- Leaders (group)
- Mayors, auxiliary mayors
- Fathers (group)
- Health and pharmacy committee (group)
- Nurse of the health department
- UNICEF, Clapp & Mayne
- Dr. Calderon
- Dr. Pineda
- Dr. Dias
- Lit Ruano
- Accountant
- Director, Maternal & Child Health, Project HOPE
  (Dr. Bettina Schwethelm)